

CURRENT STATUS OF ALL CLAIMS

1. (Currently amended) An isolated nucleic acid molecule encoding a ~~PAAD-containing~~ PAN6 polypeptide, comprising:

- (a) a nucleic acid molecule encoding a polypeptide comprising the amino acid sequence set forth as SEQ ID NO:24 ~~SEQ ID NOS: 16, 18, 20, 22, 24, 26 or 28;~~ or
- (b) a nucleic acid molecule that hybridizes to the nucleic acid molecule of (a) under highly stringent conditions, where the nucleic acid molecule encodes a biologically active PAN6 ~~PAAD domain-containing~~ polypeptide.

2. (Currently amended) The nucleic acid molecule of claim 1, comprising a nucleotide sequence set forth as SEQ ID NO:23 ~~any of SEQ ID NO: 15, 17, 19, 21, 23, 25 and 27.~~

3. (Original) A vector containing the nucleic acid molecule of claim 1.

4. (Original) A recombinant cell containing the nucleic acid molecule of claim 1.

Claims 5 to 14. Cancelled.

15. (Currently amended) ~~An~~ A PAN6 oligonucleotide comprising at least 17 nucleotides capable of specifically hybridizing with the nucleotide sequence set forth as SEQ ID NO:23, ~~in any of SEQ ID NOS:15, 17, 19, 21, 23, 25 and 27~~ or the complement thereof.

Inventors: Reed et al.
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16. (Currently amended) ~~An~~ A PAN6 oligonucleotide comprising at least 50 nucleotides capable of specifically hybridizing with the nucleotide sequence set forth as SEQ ID NO:23, ~~in any of SEQ ID NOs:15, 17, 19, 21, 23, 25 and 27~~ or the complement thereof.

Claims 17 to 49. Cancelled.